

IN THE CLAIMS

Please amend and/or cancel the claim(s) of the captioned application, and/or add claim(s) to the captioned application, in accordance with the following annotations and/or mark-ups showing all change(s) relative to the previous version(s) of the claim(s) as required by 37 C.F.R. 1.121:

1. (Previously amended) A nucleic acid sequence defining a set of genetic elements for delivery into a cell comprising:

a sequence coding for a sequence of interest,

a sequence coding for a primer binding site located 3' to said sequence of interest,

a sequence coding for a sequence having enzymatic activity within said sequence of interest, and

a sequence coding for an inverted tandem repeat, said sequence of interest being located either (a) between the inverted tandem repeat or (b) between the inverted tandem repeat and the 3' primer binding site,

said set of genetic elements being incorporated into a vector for delivery to a cell.

2. (Canceled).

3. (Currently amended) The set of genetic elements of claim 2 1 wherein

said reverse transcriptase gene is selected from the group consisting of the reverse transcriptase genes from Moloney murine leukemia virus, human immunodeficiency virus, or simian immunodeficiency virus.

4. (Currently amended) The set of genetic elements of claim 2 1 additionally comprising a eukaryotic promoter for said reverse transcriptase gene.

5. (Previously amended) The set of genetic elements of claim 1 wherein the nucleic acids comprising said inverted tandem repeat form a stem-loop intermediate with said sequence of interest in the loop and said inverted tandem repeat forming the stem after expression in the cell.

6. (Original) The set of genetic elements of claim 1 additionally comprising a second sequence of interest.

7. (Original) The set of genetic elements of claim 6 wherein said second sequence of interest is located 3' to said inverted tandem repeat and 5' to said primer binding site.

8. (Original) The set of genetic elements of claim 7 wherein said second sequence of interest additionally comprises a sequence having enzymatic activity.

9. (Original) The set of genetic elements of claim 1 additionally comprising a eukaryotic promoter for said sequence of interest.

10. (Original) The set of genetic elements of claim 9 wherein the promoter for said sequence of interest is selected from the group of promoters comprising constitutive, inducible, wide-spectrum, or tissue specific promoters.

11. (Original) An mRNA transcript produced by transcription of the set of genetic elements of claim 1.

12. (Original) A cell having the set of genetic elements of claim 1 delivered thereto by the vector of claim 1.

13. (Previously amended) An mRNA transcript of a reverse transcriptase gene and further comprising a sequence of interest including a sequence with enzymatic activity therein, said sequence of interest including said sequence having enzymatic activity being flanked by an inverted tandem repeat, and a primer binding site located 3' to the inverted tandem repeat.

14. (Original) The mRNA transcript of claim 13 additionally comprising a second sequence of interest.

15. (Original) The mRNA transcript of claim 14 wherein said second sequence of interest includes a sequence having enzymatic activity.